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RICHARD W. WIEKING
CLERK, U.S. DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

MELINDA HAAG (CABN 132612)
United States Attorney

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

UNITED STATES OF AMERICA,

Plaintiff,

v.

WALTER LIAN-HEEN LIEW,
a.k.a. LIU YUANXUAN,
CHRISTINA HONG QIAO LIEW,
a.k.a. QIAO HONG,
ROBERT J. MAEGERLE,
USA PERFORMANCE TECHNOLOGY,
INC.,
TZE CHAO,
a.k.a. ZHI ZHAO,
HOU SHENG DONG,
PANGANG GROUP COMPANY, LTD.,
PANGANG GROUP STEEL
VANADIUM & TITANIUM
COMPANY, LTD.,
PANGANG GROUP TITANIUM
INDUSTRY COMPANY, LTD., and
PANGANG GROUP INTERNATIONAL
ECONOMIC & TRADING COMPANY,

Defendants.

No. CR 11-0573 JSW

VIOLATIONS: 18 U.S.C. § 1831(a)(5) –
Conspiracy to Commit Economic
Espionage; 18 U.S.C. § 1832(a)(5) –
Conspiracy to Commit Theft of Trade
Secrets; 18 U.S.C. § 1831(a)(4) –
Attempted Economic Espionage; 18
U.S.C. § 1832(a)(4) – Attempted Theft
of Trade Secrets; 18 U.S.C. § 1832(a)(3)
– Possession of Trade Secrets; 18 U.S.C.
§ 1832(a)(2) – Conveying Trade Secrets;
18 U.S.C. § 2 – Aiding and Abetting; 18
U.S.C. § 1512(k) – Conspiracy to
Tamper with Witnesses and Evidence; 18
U.S.C. § 1512(b)(1) – Witness
Tampering; 18 U.S.C. § 1001(a)(2)
– False Statements; 18 U.S.C. § 2 –
Aiding and Abetting; 18 U.S.C. §§ 1834
and 2323 – Economic Espionage
Forfeiture; 18 U.S.C. §§ 1834 and 2323
– Trade Secret Forfeiture; 18 U.S.C. §
981(a)(1)(C) & 28 U.S.C. § 2461 –
Witness Tampering Forfeiture

(SAN FRANCISCO VENUE)

(UNDER SEAL)

1 SUPERSEDING INDICTMENT

2 The Grand Jury charges that at all times relevant to this Superseding Indictment:

3 INTRODUCTORY ALLEGATIONS

4 1. The government of the People's Republic of China (PRC) publicly identified the
5 development of chloride-route titanium dioxide (TiO₂) production technology as a
6 scientific and economic priority. Economic growth in the PRC had created significant
7 demand for TiO₂, and because PRC companies had not been able to develop clean,
8 efficient TiO₂ production technology, the PRC was a net importer of TiO₂ from western
9 countries. Chloride-route TiO₂ production technology was closely held by western
10 companies, including E.I. du Pont de Nemours & Company (DuPont), which had invented
11 and improved the technology through intensive research and development over many
12 years. DuPont was not willing to sell or license its proprietary technology to PRC
13 companies to build TiO₂ factories in the PRC.

14 2. Aware of the PRC's national priority and the barriers placed by DuPont on
15 access to the technology, at the times set forth below, individuals named in this
16 Superseding Indictment obtained TiO₂ trade secrets belonging to DuPont and conveyed
17 information containing those trade secrets to companies controlled by the PRC
18 government without authorization from DuPont.

19 Defendants in the United States

20 3. Defendant WALTER LIAN-HEEN LIEW, also known as LIU YUANXUAN
21 (WALTER LIEW), was a resident of California, and an owner and executive of USA
22 PERFORMANCE TECHNOLOGY, INC. (USAPTI) and its predecessor companies, LH
23 Performance, Inc. and Performance Group (USA), Inc. WALTER LIEW was born in
24 Malaysia in 1957, emigrated to the United States in 1984, and became a naturalized
25 citizen of the United States in 1993.

26 4. Defendant CHRISTINA HONG QIAO LIEW, also known as QIAO HONG
27 (CHRISTINA LIEW), was a resident of California, and an owner and executive of
28 USAPTI and its predecessor companies, LH Performance, Inc. and Performance Group

1 (USA), Inc. CHRISTINA LIEW was born in the PRC in 1962, emigrated to the United
2 States in 1993, and became a naturalized citizen of the United States in 1997. WALTER
3 LIEW was married to CHRISTINA LIEW.

4 5. Defendant USAPTI was a California corporation headquartered in Oakland,
5 California that offered engineering consulting services. USAPTI succeeded to the rights
6 and obligations of its predecessor companies, LH Performance, Inc. and Performance
7 Group (USA), Inc., with respect to those companies' TiO2 business, and the business
8 names were sometimes used interchangeably.

9 6. Defendant TZE CHAO, also known as ZHI ZHAO, was a resident of Delaware
10 and an owner of two consulting firms: Cierra Technology, Inc. (Cierra), incorporated in
11 the State of Delaware, and Zhi Hua Technology Co., Ltd. (Zhi Hua), a Hong Kong-based
12 entity. CHAO was born in China in 1934, emigrated to the United States in 1967, and
13 became a naturalized citizen of the United States in December 1972. CHAO was a
14 DuPont employee from 1966 to 2002.

15 7. Defendant ROBERT J. MAEGERLE was a resident of Delaware and an owner
16 of a consulting firm, Pinewater Designs, Inc. MAEGERLE was a process engineer,
17 among other things, for DuPont from 1956 to 1991.

18 Defendants in the PRC

19 8. The State-Owned Assets Supervision and Administration Commission of the
20 State Council (SASAC) was a special government agency of the PRC. It was under the
21 direct control of the State Council, the PRC's highest government authority. According
22 to its website, SASAC "performs investor's responsibilities, supervises and manages the
23 state-owned assets of the enterprises under the supervision of the Central Government . . .
24 and enhances the management of the state-owned assets." The appointment of senior
25 officers and directors of central state-owned assets was controlled by the Organization
26 Department of the Communist Party of China Central Committee and managed by
27 SASAC.

28 ///

1 9. Defendant PANGANG GROUP COMPANY LIMITED (PANGANG GROUP),
2 also known as Panzhihua Iron and Steel (Group) Co., Ltd., was a state-owned enterprise
3 controlled by SASAC and located in Sichuan Province, PRC. The Chairman and certain
4 other senior managers of PANGANG GROUP were officials of the Communist Party of
5 China. In or about 2002, PANGANG GROUP acquired, through a joint venture, Jinzhou
6 Titanium Industry Co., Ltd. (PANGANG Jinzhou), which operated a small TiO₂
7 manufacturing facility in Liaoning Province, PRC.

8 10. PANGANG GROUP controlled the following subsidiaries (referred to
9 collectively in this Superseding Indictment as the "PANGANG GROUP companies"):

10 a. Defendant PANGANG GROUP STEEL VANADIUM & TITANIUM
11 COMPANY LIMITED (PGSVTC), which shared senior management with PANGANG
12 GROUP.

13 b. Defendant PANGANG GROUP TITANIUM INDUSTRY COMPANY
14 LIMITED (PANGANG GROUP TITANIUM) was formed in 2007 by PANGANG
15 GROUP to develop a large chloride-route TiO₂ factory in Sichuan Province. PANGANG
16 GROUP TITANIUM was owned and controlled by PANGANG GROUP and PGSVTC.

17 c. Defendant PANGANG GROUP INTERNATIONAL ECONOMIC &
18 TRADING COMPANY (PIETC) was the financing arm of PANGANG GROUP. It was
19 responsible for securing the financing and handling the economic affairs of projects
20 conducted by PANGANG GROUP. PIETC was owned and controlled by PANGANG
21 GROUP and PGSVTC.

22 11. Defendant HOU SHENGDONG was a citizen of the PRC and worked for the
23 PANGANG GROUP and PANGANG GROUP TITANIUM where he served as Vice
24 Director of the Chloride Process TiO₂ Project Department.

25 DuPont Trade Secrets and Confidentiality Protections

26 12. DuPont was a company headquartered in Wilmington, Delaware that
27 manufactured TiO₂, a commercially valuable white pigment that was used in a large
28 number of materials ranging from paints to plastics to paper. DuPont manufactured TiO₂

1 at plants in the United States, Mexico, and Taiwan using proprietary technology and sold
2 it throughout the world in interstate and foreign commerce, including in the PRC.

3 DuPont was the world's largest producer of TiO₂ pigment, and its TiO₂ accounted for
4 approximately one-fifth of all world-wide TiO₂ sales.

5 13. DuPont invented the chloride-route process for manufacturing TiO₂ in the 1940s
6 and has refined this process over time. The production of TiO₂ through the chloride-
7 route is a complex manufacturing process, and DuPont has been continually working to
8 improve its process since its invention. Through its seventy years of experience, research
9 and development, DuPont has developed a proprietary TiO₂ process that provides DuPont
10 with a competitive advantage in the international marketplace.

11 14. DuPont's TiO₂ technology included, but was not limited to, the following trade
12 secrets:

13 a. **Trade Secret 1:** The complete DuPont chloride-route process to
14 manufacture TiO₂. Trade Secret 1 includes, but is not limited to, Trade Secrets 2 through
15 5 set forth below.

16 b. **Trade Secret 2:** DuPont Drawing No. W1245258, titled "Edge Moor Plant
17 Oxidation W/RPS System Drawing." This drawing, marked with the DuPont oval logo
18 trademark, explicitly stated that the "information and know-how [on the drawing] may
19 not be used nor the drawing reproduced without the written permission of DuPont." The
20 drawing provided information about TiO₂ oxidation area process, including detailed
21 process flow descriptions for each major stream within the process, including stream
22 capacities, chemical compositions, temperatures, pressures, and physical states. The
23 drawing included details related to pipeline sizes, automatic and manual valve sizes and
24 locations, detailed instrumentation requirements, and safety relief devices.

25 c. **Trade Secret 3:** DuPont Accession Report No. 18135, titled "Improved
26 Mixing Correlation for the TiCl₄ Oxidation Reaction Computer Model," dated September
27 7, 1994, which appended a mathematical equation, referred to as the "Diemer
28 correlation," and related code in the Fortran language for a computer model. The

1 correlation, which enabled the calculation of the mixing time and distance required for the
2 completion of the oxidation process for any DuPont reactor under any set of process
3 conditions, incorporated historical operating data from DuPont's production lines and its
4 oxidation science. On its cover page, the report was marked "DuPont Confidential – use
5 and dispose per DISO [DuPont Information Security Organization] policy," and "[t]his
6 report contains confidential information and each holder is responsible for its
7 safekeeping. When no longer needed, please destroy or dispose of in conformance with
8 PIP [Proprietary Information Protection] Guidelines."

9 **d. Trade Secret 4:** DuPont Flow Sheet No. EK2411, titled "Edge Moor
10 Pigments Plant Flow Sheet – Reaction Area," with handwritten notations. This flow
11 sheet, bearing the DuPont oval logo trademark, was marked "DuPont Confidential –
12 Special Control," and provided that the "employee receiving this registered print will sign
13 and print the attached acknowledging card, will properly safeguard this print and will be
14 held personally accountable for this print." The flow sheet contained information about
15 the TiO₂ reaction area process, *e.g.*, the process of treating ores with chlorine gas,
16 including the inter-connectivity of all major streams between the reaction area equipment,
17 which illustrates where and how DuPont injects chemical additives, fuel, feedstocks,
18 purge gases and coolants to the process. This flow sheet also included roughly 30
19 alphanumeric handwritten references to a proprietary, internally-commissioned computer
20 simulation model on the ASPEN-PLUS® platform, known as the Reaction Aspen-Plus
21 (RAP) model, which was described in a separate confidential DuPont technical report.
22 The handwritten references matched the specific nomenclature used for the RAP model,
23 which was created for plant optimization projects and capacity expansions.

24 **e. Trade Secret 5:** DuPont Document EM-C-8510-0148, titled "60,000
25 Metric Tons Per Year Scope/Basic Data," dated October 31, 1985, addressed to R.J.
26 MAEGERLE (the "Basic Data Document"). This 407-page document, which was
27 designated "Confidential – Special Control," and issued in numbered copies, provided the
28 scope and basic data for DuPont's then-planned chloride-route plant in Taiwan, which

1 later opened in Kuan Yin, Taiwan. It contained the process and equipment information
2 necessary to design a greenfield (e.g., a plant built from scratch at an undeveloped site),
3 world-class production scale, integrated chloride-route TiO₂ production line. The Basic
4 Data Document's security statement provided that the report is "highly confidential" and
5 "[m]uch of the report data are considered in the 'trade secret' category and should not be
6 released to vendor representatives and non-Company personnel." The Basic Data
7 document was itself a trade secret and it contained numerous discrete trade secrets within
8 in it.

9 15. DuPont protected the confidential information surrounding its TiO₂ technology,
10 including its trade secrets, to prevent unauthorized use or disclosure, by a variety of
11 measures, including, but not limited to:

- 12 • limiting visitor access to its TiO₂ facilities;
- 13 • transmitting, receiving, and destroying confidential information in a secure
14 manner;
- 15 • requiring employees to execute non-disclosure agreements;
- 16 • requiring separating employees to certify that they had returned all
17 confidential or secret DuPont materials;
- 18 • compartmentalizing information surrounding the TiO₂ process and access
19 to it;
- 20 • requiring permission to access data systems that contain TiO₂
21 documentation - including drawings, equipment specifications, instrument
22 specifications, logic diagrams, standard operation procedures, maintenance
23 work practices, technology reports, etc.;
- 24 • sending letters to former DuPont employees and/or competing companies
25 that hired former DuPont employees regarding the protection of its trade
26 secrets; and
- 27 • maintaining physical security measures in and around TiO₂ production
28 facilities, including fences, gates, locks, guard facilities, surveillance, escort

1 requirements, identification badges, and prohibitions on photography and
2 videotaping.

3
4 COUNT ONE: (18 U.S.C. § 1831(a)(5) – Conspiracy to Commit Economic Espionage)

5 16. The allegations contained in Paragraphs 1 through 15 are re-alleged and
6 incorporated as if fully set forth herein.

7 17. Beginning in or about 1998, and continuing to in or about October 2011, in the
8 Northern District of California and elsewhere, defendants

9 WALTER LIEW,
10 CHRISTINA LIEW,
11 USAPTI,
12 TZE CHAO,
13 HOU SHENGDONG,
14 PANGANG GROUP,
15 PGSVTC,
16 PANGANG GROUP TITANIUM, and
17 PIETC,

18 together with others known and unknown to the Grand Jury, knowingly combined,
19 conspired and agreed to:

20 a. knowingly and without authorization copy, duplicate, sketch, draw, alter,
21 photocopy, replicate, transmit, deliver, send, communicate, and convey trade secrets
22 belonging to DuPont; and

23 b. knowingly receive, buy and possess trade secrets belonging to DuPont,
24 knowing the same to have been stolen, appropriated, obtained and converted without
25 authorization;

26 intending and knowing that the offenses would benefit a foreign government, namely the
27 PRC, and foreign instrumentalities, namely PANGANG GROUP, PGSVTC, PANGANG
28 GROUP TITANIUM, and PIETC, in violation of Title 18, United States Code, Sections
1831(a)(2) and (a)(3).

29 Manner and Means of the Conspiracy

30 18. In order to develop chloride-route TiO₂ production capabilities and circumvent
31 DuPont's restriction on its proprietary technology, companies owned and controlled by

1 the PRC government and employees of those companies, including the PANGANG
2 GROUP companies named in this Superseding Indictment, attempted to illegally obtain
3 technology that had been developed by DuPont.

4 19. In the 1990s, WALTER LIEW learned that the government of the PRC had
5 prioritized the development of chloride-route TiO₂ technology. By the beginning of
6 1998, WALTER LIEW had assembled a team of former DuPont employees, including
7 MAEGERLE and others, to assist him in his efforts to convey DuPont's TiO₂ technology
8 to entities in the PRC.

9 20. WALTER LIEW executed contracts with state-owned entities in the PRC for
10 chloride-route TiO₂ projects that relied on the transfer of illegally obtained DuPont
11 technology, including: (a) a \$5,600,000 contract in 1998 with the import and export
12 company of Chengde Iron & Steel Group; (b) a \$6,180,000 contract in 2005 with
13 PANGANG Jinzhou for a 30,000 metric tons per year (MTPY) project; and (c) a
14 \$17,800,000 contract in 2009 with PIETC and PANGANG GROUP TITANIUM for a
15 100,000 MTPY project.

16 21. MAEGERLE had detailed knowledge of DuPont's TiO₂ technology and
17 expertise in building TiO₂ production lines. In furtherance of the contracts entered into
18 by WALTER LIEW, MAEGERLE provided WALTER LIEW and USAPTI with DuPont
19 information, including information contained in Trade Secret 5.

20 PANGANG GROUP Projects

21 22. In approximately 2003, PANGANG Jinzhou, a subsidiary of PANGANG
22 GROUP, decided to build a larger, more efficient 30,000 MTPY chloride-process plant.
23 WALTER LIEW wrote letters in 2003 and 2004, claiming to possess the complete TiO₂
24 process technology and attempting to sell his services to PANGANG Jinzhou to design its
25 new factory.

26 23. In March 2004, PANGANG GROUP hired CHAO as a consultant because of his
27 experience with and knowledge of DuPont's TiO₂ technology. At PANGANG GROUP's
28 instruction, CHAO contacted WALTER LIEW and asked LIEW about his chloride-route

1 TiO2 technology.

2 24. As part of the negotiation process for the PANGANG Jinzhou contract,
3 WALTER LIEW also provided PANGANG Jinzhou with numerous photographs of
4 DuPont facilities, which revealed proprietary and confidential aspects of the
5 manufacturing process. WALTER LIEW obtained these photographs from MAEGERLE
6 who was not authorized to take or disseminate them outside DuPont.

7 25. In or about 2008, PANGANG GROUP put out a request for proposal for a
8 100,000 MTPY chloride-route TiO2 project in Chongqing, PRC. Both USAPTI and
9 Cierra (CHAO's company) submitted bids. No other engineering firm bid on the project.
10 In their efforts to obtain the contract, both USAPTI and Cierra represented to PANGANG
11 GROUP that they possessed DuPont technology.

12 26. Throughout 2008, WALTER LIEW and MAEGERLE for USAPTI and CHAO
13 for Cierra provided detailed information to PANGANG GROUP regarding the design and
14 construction of the new facility. During these technology exchanges, PANGANG
15 GROUP employees, including HOU SHENG DONG and an official from PANGANG
16 GROUP TITANIUM, asked WALTER LIEW and CHAO for DuPont blueprints and the
17 names of former DuPont employees who would work on the project.

18 27. In 2009, PANGANG GROUP hired USAPTI to design the project in Chongqing.
19 The parties to the contract were USAPTI, PANGANG GROUP, and PIETC, and the
20 beneficiary of the contract was PANGANG GROUP's subsidiary, PANGANG GROUP
21 TITANIUM.

22 28. Following the execution of the contract for the 100,000 MTPY project, USAPTI,
23 PANGANG GROUP TITANIUM, and PIETC had a series of meetings in San Francisco
24 and the PRC to advance the project. At various times, WALTER LIEW, CHRISTINA
25 LIEW, MAEGERLE, and others attended meetings on behalf of USAPTI, and HOU
26 SHENG DONG and others attended meetings on behalf of PANGANG GROUP
27 TITANIUM.

28 ///

1 29. The basic design information USAPTI delivered to PANGANG GROUP
2 TITANIUM in August 2009 contained numerous features based on technology directly
3 misappropriated from DuPont. At the request of an official from PANGANG GROUP
4 TITANIUM, CHAO reviewed USAPTI's designs in China in September 2009. CHAO
5 prepared a report for PANGANG GROUP TITANIUM with specific suggestions for
6 improving USAPTI's designs. CHAO's suggestions relied, in part, on DuPont's trade
7 secrets, which he included in his report.

8 30. Between July 6, 2009 and July 6, 2011, PIETC paid USAPTI (and its
9 predecessor, Performance Group) \$12,578,461 for work on the 100,000 MTPY project.

10 31. Proceeds from the sale of DuPont technology to PANGANG GROUP were paid
11 to WALTER LIEW, CHRISTINA LIEW, and USAPTI through letters of credit and
12 letters of guarantee established at various Chinese banks. To obtain this money,
13 WALTER LIEW, CHRISTINA LIEW, and USAPTI drew down on the letters of credit
14 and letters of guarantee through Mega International Commercial Bank in San Jose,
15 California. WALTER LIEW and CHRISTINA LIEW wired millions of dollars in
16 proceeds from PANGANG GROUP to CHRISTINA LIEW's relatives in the PRC
17 through bank accounts in Singapore and elsewhere.

18 Overt Acts

19 32. In furtherance of the conspiracy and to effect its objects, defendants committed
20 the following overt acts, among others, in the Northern District of California and
21 elsewhere:

22 33. On or about March 15, 1998, MAEGERLE sent a facsimile to WALTER LIEW
23 that contained proprietary and confidential information about DuPont's TiO₂ plant costs
24 and personnel data, including information from Trade Secret 5.

25 34. On or about October 8, 2005, MAEGERLE emailed WALTER LIEW a series of
26 photographs from various DuPont facilities that contained proprietary and confidential
27 information about DuPont technologies associated with its chloride-route TiO₂ process.

28 ///

1 35. On or about November 25, 2005, WALTER LIEW on behalf of Performance
2 Group (USA), Inc. entered into a \$6,180,000 contract on the 30,000 MTPY chloride-route
3 TiO2 project with PIETC on behalf of PANGANG Jinzhou.

4 36. On or about April 17, 2008, WALTER LIEW directed Mega Bank to wire
5 \$759,982 to an account at the Development Bank of Singapore (DBS) in the name of
6 Huadong Equipment Solutions, Pte, Ltd. (Huadong), over which WALTER LIEW had
7 signature authority.

8 37. On or about May 29, 2008, WALTER LIEW directed DBS to wire \$750,000
9 from the Huadong account in Singapore to an HSBC in account in Hong Kong belonging
10 to CHRISTINA LIEW's father, a resident of the PRC, over which WALTER LIEW had
11 signature authority.

12 38. On or about May 30, 2008, WALTER LIEW directed the transfer of
13 approximately \$670,000 from the HSBC account of CHRISTINA LIEW's father into a
14 deposit account.

15 39. On or about June 2, 2008, employees of PANGANG GROUP companies,
16 including HOU SHENG DONG, agreed that PANGANG GROUP would work with
17 Cierra and CHAO if they employed former DuPont employees and possessed blueprints
18 for DuPont's TiO2 plants.

19 40. On or about July 15, 2008, WALTER LIEW and CHRISTINA LIEW informed
20 PANGANG GROUP TITANIUM that their drawings would replicate DuPont's DeLisle
21 plant.

22 41. On or about August 22, 2008, MAEGERLE provided a USAPTI consultant with
23 electronic copies of confidential, proprietary DuPont documents during a business trip to
24 the PRC, including Trade Secret 2, Trade Secret 4, and a set of the photographs described
25 in Paragraph 34.

26 42. On or about October 25, 2008, MAEGERLE emailed WALTER LIEW specific
27 information from Trade Secret 5 and stated that "[t]he Jinzhou specifications were scaled
28 down" from information from Trade Secret 5.

1 43. In or about July 2009, MAEGERLE drafted a three-page document entitled,
2 "100K T/Y TiO2 CHLORINATOR DESIGN," which referenced specific confidential,
3 proprietary data contained in the Basic Data Document (Trade Secret 5), which he used to
4 scale up for the 100,000 MTPY project.

5 44. On or about September 3, 2009, MAEGERLE sent WALTER LIEW an email
6 containing a specific and confidential figure from Trade Secret 5.

7 45. On August 8, 2010, USAPTI executed a \$796,000 contract with PIETC for
8 PANGANG GROUP Chongqing Titanium Industry Co., Ltd. to procure equipment for
9 the 100,000 MTPY project.

10 46. In or about November 2010, WALTER LIEW provided a portion of Trade Secret
11 3 to a USAPTI employee.

12 47. A USAPTI employee emailed himself portions of Trade Secret 3 on February 22,
13 2011, March 4, 2011, and March 8, 2011.

14 48. On or about July 19, 2011, WALTER LIEW and CHRISTINA LIEW concealed
15 Trade Secret 2 and Trade Secret 4 at their residence in Orinda, California.

16 49. On or about July 19, 2011, CHRISTINA LIEW attempted to prevent law
17 enforcement from gaining access to a safe deposit box at Bank of East Asia in Oakland,
18 California that contained copies of Trade Secret 2 and 4 and the photographs referenced
19 in Paragraph 34.

20 50. In or about October 2011, HOU SHENGDONG attempted to contact CHAO for
21 additional assistance with the 100,000 MTPY project.

22 All in violation of Title 18, United States Code, Section 1831(a)(5).
23

24 COUNT TWO: (18 U.S.C. § 1832(a)(5) – Conspiracy to Commit Theft of Trade
25 Secrets)

26 51. The allegations contained in Paragraphs 1 through 15 are re-alleged and
27 incorporated as if fully set forth herein.

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1 52. Beginning in or about 1998, and continuing to in or about October 2011, in the
2 Northern District of California and elsewhere, defendants

3 WALTER LIEW,
4 CHRISTINA LIEW,
5 ROBERT MAEGERLE,
6 USAPTI,
7 HOU SHENGDONG,
8 PANGANG GROUP,
9 PGSVTC,
10 PANGANG GROUP TITANIUM, and
11 PIETC,

12 together with others known and unknown to the Grand Jury, knowingly combined,
13 conspired and agreed to:

14 a. knowingly and without authorization copy, duplicate, sketch, draw, alter,
15 photocopy, replicate, transmit, deliver, send, communicate, and convey trade secrets
16 belonging to DuPont; and

17 b. knowingly receive, buy and possess trade secrets belonging to DuPont,
18 knowing the same to have been stolen, appropriated, obtained and converted without
19 authorization;

20 intending to convert a trade secret that is related to and included in a product, namely
21 TiO₂, that is produced for and placed in interstate and foreign commerce, to the economic
22 benefit of someone other than DuPont, and intending and knowing that the offense would
23 injure DuPont, in violation of Title 18, United States Code, Sections 1832(a)(2) and
24 (a)(3).

25 Manner and Means of the Conspiracy

26 53. The objects of the conspiracy were carried out, in part, as alleged in Paragraphs
27 18 through 31 above.

28 Overt Acts

54. In furtherance of the conspiracy and to effect its objects, defendants committed
the overt acts alleged in Paragraphs 32 through 50, among others, in the Northern District
of California and elsewhere.

All in violation of Title 18, United States Code, Section 1832(a)(5).

1 COUNT THREE: (18 U.S.C. § 1831(a)(2) and (4) – Attempted Economic Espionage)

2 55. The allegations contained in Paragraphs 1 through 15 and 18 through 50 are re-
3 alleged and incorporated as if fully set forth herein.

4 56. Beginning on a date unknown, but no later than 2008, and continuing to on or
5 about July 19, 2011, in the Northern District of California and elsewhere, defendants

6 WALTER LIEW,
7 CHRISTINA LIEW, and
8 USAPTI

9 knowingly and without authorization attempted to copy, duplicate, sketch, draw, alter,
10 photocopy, replicate, transmit, deliver, send, communicate, and convey a trade secret
11 belonging to DuPont, specifically Trade Secret 1, intending and knowing that the offenses
12 would benefit a foreign government, namely the PRC, and foreign instrumentalities,
13 namely PANGANG GROUP, PGSVTC, PANGANG GROUP TITANIUM, and PIETC,
14 in violation of Title 18, United States Code, Sections 1831(a)(2).

15 All in violation of Title 18, United States Code, Section 1831(a)(4).

16 COUNT FOUR: (18 U.S.C. § 1831(a)(3) and (4) – Attempted Economic Espionage)

17 57. The allegations contained in Paragraphs 1 through 15 and 18 through 50 are re-
18 alleged and incorporated as if fully set forth herein.

19 58. Beginning on a date unknown, but no later than 2008, and continuing to on or
20 about October 2011, in the Northern District of California and elsewhere, defendants

21 HOU SHENGDONG,
22 PANGANG GROUP,
23 PGSVTC,
24 PANGANG GROUP TITANIUM, and
25 PIETC

26 knowingly attempted to receive, buy, and possess a trade secret belonging to DuPont,
27 specifically, Trade Secret 1, knowing it to have been stolen, appropriated, obtained, and
28 converted without authorization, intending and knowing that the offense would benefit a
foreign government, namely the PRC, and foreign instrumentalities, namely PANGANG
GROUP, PGSVTC, PANGANG GROUP TITANIUM, and PIETC, in violation of Title

1 18, United States Code, Sections 1831(a)(3).

2 All in violation of Title 18, United States Code, Section 1831(a)(4).

3 COUNT FIVE: (18 U.S.C. § 1832(a)(2) and (4) – Attempted Theft of Trade Secrets)

4 59. The allegations contained in Paragraphs 1 through 15 and 18 through 50 are re-
5 alleged and incorporated as if fully set forth herein.

6 60. Beginning on a date unknown, but no later than 2008, and continuing to on or
7 about July 19, 2011, in the Northern District of California and elsewhere, defendants

8 WALTER LIEW,
9 CHRISTINA LIEW,
10 ROBERT MAEGERLE, and
USAPTI

11 knowingly and without authorization attempted to copy, duplicate, sketch, draw, alter,
12 photocopy, replicate, transmit, deliver, send, communicate, and convey a trade secret
13 belonging to DuPont, specifically Trade Secret 1, with the intent to convert the trade
14 secret, which was related to and included in a product, specifically TiO₂, that was
15 produced for and placed in interstate and foreign commerce, to the economic benefit of
16 someone other than DuPont, and intending and knowing that the offense would injure
17 DuPont, in violation of Title 18, United States Code, Sections 1832(a)(2).

18 All in violation of Title 18, United States Code, Section 1832(a)(4).

19
20 COUNT SIX: (18 U.S.C. § 1832(a)(3) – Possession of Trade Secrets)

21 61. The allegations contained in Paragraphs 1 through 15, 48, and 49 are re-alleged
22 and incorporated as if fully set forth herein.

23 62. On or about July 19, 2011, in the Northern District of California and elsewhere,
24 defendants

25 WALTER LIEW,
26 CHRISTINA LIEW, and
27 USAPTI

28 knowingly possessed a trade secret, specifically Trade Secret 2, knowing it to have been

1 stolen and appropriated, obtained, and converted without authorization, with the intent to
2 convert the trade secret, which was related to and included in a product, specifically
3 TiO₂, that is produced for and placed in interstate and foreign commerce, to the economic
4 benefit of someone other than DuPont, and intending and knowing that the offense would
5 injure DuPont.

6 All in violation of Title 18, United States Code, Sections 1832(a)(3).
7

8 COUNT SEVEN: (18 U.S.C. § 1832(a)(3) – Possession of Trade Secrets)

9 63. The allegations contained in Paragraphs 1 through 15, 46, and 47 are re-alleged
10 and incorporated as if fully set forth herein.

11 64. In or about 2010, in the Northern District of California and elsewhere,
12 defendants

13 WALTER LIEW and
14 USAPTI

15 knowingly received and possessed a trade secret, specifically Trade Secret 3, knowing it
16 to have been stolen and appropriated, obtained, and converted without authorization, with
17 the intent to convert the trade secret, which was related to and included in a product,
18 specifically TiO₂, that is produced for and placed in interstate and foreign commerce, to
19 the economic benefit of someone other than DuPont, and intending and knowing that the
20 offense would injure DuPont.

21 All in violation of Title 18, United States Code, Sections 1832(a)(3).
22

23 COUNT EIGHT: (18 U.S.C. §§ 1832(a)(2) and 2 – Conveying Trade Secrets; Aiding
and Abetting)

24 65. The allegations contained in Paragraphs 1 through 15, 21, and 42 through 44 are
25 re-alleged and incorporated as if fully set forth herein.

26 ///

27 ///

28 ///

1 66. Between in or about 1998 to July 2011, in the Northern District of California and
2 elsewhere, defendants

3 WALTER LIEW,
4 ROBERT MAEGERLE, and
5 USAPTI

6 knowingly and without authorization copied, duplicated, sketched, drew, altered,
7 photocopied, replicated, transmitted, delivered, sent, communicated, and conveyed a trade
8 secret belonging to DuPont, specifically Trade Secret 5, with the intent to convert the
9 trade secret, which was related to and included in a product, specifically TiO₂, that was
10 produced for and placed in interstate and foreign commerce, to the economic benefit of
11 someone other than DuPont, and intending and knowing that the offense would injure
12 DuPont, and did aid and abet such conduct.

13 All in violation of Title 18, United States Code, Sections 1832(a)(3) and 2.

14 COUNT NINE: (18 U.S.C. § 1832(a)(3) – Possession of Trade Secrets)

15 67. The allegations contained in Paragraphs 1 through 15, 48, and 49 are re-alleged
16 and incorporated as if fully set forth herein.

17 68. On or about July 19, 2011, in the Northern District of California and elsewhere,
18 defendants

19 WALTER LIEW,
20 CHRISTINA LIEW, and
21 USAPTI

22 knowingly possessed a trade secret, specifically Trade Secret 4, knowing it to have been
23 stolen and appropriated, obtained, and converted without authorization, with the intent to
24 convert the trade secret, which was related to and included in a product, specifically
25 TiO₂, that was produced for and placed in interstate and foreign commerce, to the
26 economic benefit of someone other than DuPont, and intending and knowing that the
27 offense would injure DuPont.

28 All in violation of Title 18, United States Code, Sections 1832(a)(3).

///

1 COUNT TEN: (18 U.S.C. § 1512(k) – Conspiracy to Tamper with Witnesses
2 and Evidence)

3 69. The factual allegations set forth in Paragraphs 1 through 15 and 18 through 50
4 are re-alleged and incorporated as if fully set forth herein.

5 70. On or about April 6, 2011, DuPont filed a civil complaint in United States
6 District Court in San Francisco. The complaint alleged that USAPTI, WALTER LIEW,
7 and J.L., a USAPTI employee (the “civil defendants”), misappropriated trade secrets
8 from DuPont. The federal civil complaint alleged that the civil defendants “wrongfully
9 obtained and possess confidential, proprietary, trade secret materials providing detailed
10 specifications for DuPont’s Chloride-route titanium dioxide (‘TiO2’) pigment
11 manufacturing process.”

12 71. On or about and between April 6, 2011, and May 11, 2011, in the Northern
13 District of California and elsewhere, defendants

14 WALTER LIEW,
15 ROBERT MAEGERLE, and
USAPTI

16 knowingly conspired to commit violations of 18 U.S.C. § 1512(c).

17 72. As part of the conspiracy, WALTER LIEW, MAEGERLE, and USAPTI
18 corruptly obstructed, influenced, and impeded an official proceeding, in violation of 18
19 U.S.C. § 1512(c)(2).

20 73. Specifically, after DuPont filed the federal civil complaint, MAEGERLE emailed
21 WALTER LIEW for the purpose of assisting WALTER LIEW in responding to the
22 lawsuit and knowing that WALTER LIEW would use the information for that purpose.
23 MAEGERLE emailed materially false information about the source of the information
24 used for USAPTI’s projects in the PRC and specifically stated that no information from
25 DuPont’s Kuan Yin plant was used in the USAPTI designs, which was false and known
26 to be false to both MAEGERLE and LIEW. MAEGERLE provided LIEW with
27 comments on specific paragraphs of the complaint.

28 ///

1 74. LIEW caused an answer to be filed to the federal civil complaint on or about
2 May 11, 2011, which contained false statements, including the answer to paragraph 32 of
3 the complaint that "Defendants have never misappropriated any information from DuPont
4 or any of its locations, whether the Kuan Yin facility or otherwise."

5 All in violation of Title 18, United States Code, Section 1512(k).
6

7 COUNT ELEVEN: (18 U.S.C. § 1512(b)(1) – Witness Tampering)

8 75. The factual allegations set forth in Paragraphs 1 through 15, 18 through 50, and
9 70 are re-alleged and incorporated as if fully set forth herein.

10 76. In or about April 2011, in the Northern District of California, defendant
11 WALTER LIEW
12 did knowingly intimidate, threaten, and corruptly persuade, and attempt to intimidate,
13 threaten, and corruptly persuade, another person, specifically J.L., with the intent to
14 influence, delay, and prevent the testimony of J.L. in an official proceeding.

15 77. WALTER LIEW, CHRISTINA LIEW, and USAPTI employed and paid at least
16 two former DuPont employees for assistance in designing TiO2 manufacturing facilities
17 for two or more customers in China. These employees were known to J.L. when he
18 worked for USAPTI.

19 78. Specifically, after learning that he, USAPTI, and J.L. had been sued by DuPont
20 in federal district court for misappropriation of trade secrets, WALTER LIEW met with
21 J.L. and told J.L. that he should not say anything about other individuals who had worked
22 with USAPTI – meaning the former DuPont employees – because it would not be good
23 for J.L. or J.L.'s family.

24 All in violation of Title 18, United States Code, Section 1512(b)(1).
25

26 COUNT TWELVE: (18 U.S.C. § 1512(b)(1) – Witness Tampering)

27 79. The factual allegations set forth in Paragraphs 1 through 15, 18 through 50, 77,
28 and 78 are re-alleged and incorporated as if fully set forth herein.

1 80. In or about April 2011, in the Northern District of California, defendant
2 CHRISTINA LIEW
3 did knowingly intimidate, threaten, and corruptly persuade, and attempt to intimidate,
4 threaten, and corruptly persuade, another person, specifically J.L., with the intent to
5 influence, delay, and prevent the testimony of J.L. in an official proceeding.

6 81. Specifically, after learning that WALTER LIEW, USAPTI, and J.L. had been
7 sued by DuPont in federal district court for misappropriation of trade secrets,
8 CHRISTINA LIEW met with J.L. and discussed the pending litigation. During that
9 meeting, CHRISTINA LIEW told J.L. not to reveal in connection with the civil litigation
10 the identities of the former DuPont employees of whom J.L. was aware through his work
11 with USAPTI.

12 All in violation of Title 18, United States Code, Section 1512(b)(1).
13

14 COUNT THIRTEEN: (18 U.S.C. § 1512(k) – Conspiracy to Tamper with Evidence)

15 82. The factual allegations set forth in Paragraphs 1 through 15, 18 through 50, 77,
16 78, and 81 are re-alleged and incorporated as if fully set forth herein.

17 83. On or about July 19, 2011, agents of the Federal Bureau of Investigation (FBI)
18 executed a search warrant at the residence of WALTER LIEW and CHRISTINA LIEW
19 in Orinda, California, as part of a federal criminal investigation.

20 84. Between on or about April 6, 2011 and July 19, 2011, in the Northern District of
21 California, and elsewhere, defendants

22 WALTER LIEW and
23 CHRISTINA LIEW

24 conspired to commit violations of 18 U.S.C. §§ 1512(b)(3) and (c)(1).

25 85. As part of the conspiracy, WALTER LIEW and CHRISTINA LIEW knowingly
26 engaged in misleading conduct toward agents of the FBI with the intent to hinder, delay,
27 and prevent the communication to those agents of information regarding the commission
28 or possible commission of a federal offense, in violation of 18 U.S.C. § 1512(b)(3).

1 86. As further part of the conspiracy, WALTER LIEW and CHRISTINA LIEW
2 corruptly concealed records, documents, and other objects, and attempted to do so, with
3 the intent to impair the availability of the records, documents, and objects for use in an
4 official proceeding, in violation of 18 U.S.C. § 1512(c)(1).

5 87. During the search of the LIEWs' residence conducted on July 19, 2011, FBI
6 agents found safe deposit box keys. Speaking in Mandarin Chinese, WALTER LIEW
7 directed CHRISTINA LIEW to deny knowing anything about the keys. CHRISTINA
8 LIEW followed his direction by stating to the agents in English that she did not remember
9 the safe deposit boxes when, in fact, she knew at the time that she had a safe deposit box,
10 to which one of the keys corresponded, at the Bank of East Asia in Oakland, California.
11 The safe deposit box contained information regarding USAPTI and USAPTI's
12 relationship with a Chinese customer that was purchasing TiO2 technology from
13 USAPTI, among other records, documents, and objects relevant to the FBI's
14 investigation.

15 All in violation of 18 U.S.C. § 1512(k).

16
17 COUNT FOURTEEN: (18 U.S.C. §§ 1001(a)(2) & 2 – False Statements In a Matter
18 Within the Jurisdiction of the Executive Branch; Aiding and
Abetting)

19 88. The factual allegations set forth in Paragraphs 1 through 15, 18 through 50, 77,
20 78, 81, 83, and 85 through 87 are re-alleged and incorporated as if fully set forth herein.

21 89. On or about July 19, 2011, in the Northern District of California, defendants

22 WALTER LIEW and
23 CHRISTINA LIEW

24 knowingly and willfully made materially false, fictitious, and fraudulent statements and
25 representations regarding matters within the jurisdiction of the executive branch of the
26 Government of the United States, to wit, they denied knowledge of the bank safe deposit
27 box keys found in their home, when, in fact, they knew at the time they were asked by
28 FBI special agents that they had a safe deposit box to which one of the keys

1 corresponded.

2 All in violation of Title 18, United States Code, Sections 1001(a)(2) and 2.

3
4 FIRST FORFEITURE ALLEGATION: (18 U.S.C. §§ 1834 and 2323 – Proceeds and
5 Property Involved in Economic Espionage)

6 90. The allegations contained in Counts One, Three, and Four of this Superseding
7 Indictment are hereby re-alleged and incorporated by reference for the purpose of alleging
8 forfeiture pursuant to Title 18, United States Code, Sections 1834 and 2323.

9 91. Upon conviction of the offenses in violation of Title 18, United States Code,
10 Section 1831 set forth in Counts One, Three, and Four of this Superseding Indictment,
11 defendants

12 WALTER LIEW,
13 CHRISTINA LIEW,
14 USAPTI,
15 TZE CHAO,
16 HOU SHENGDONG,
PANGANG GROUP,
PGSVTC,
PANGANG GROUP TITANIUM, and
PIETC

17 shall forfeit to the United States of America, pursuant to Title 18, United States Code,
18 Sections 1834 and 2323, any property used, or intended to be used, in any manner or part
19 to commit or facilitate the commission of the offenses; and any property constituting or
20 derived from any proceeds obtained directly or indirectly as a result of the commission of
21 the offenses.

22 92. If any of the property described above, as a result of any act or omission
23 of the defendants:

- 24 a. cannot be located upon the exercise of due diligence;
25 b. has been transferred or sold to, or deposited with, a third party;
26 c. has been placed beyond the jurisdiction of the court;
27 d. has been substantially diminished in value; or
28 e. has been commingled with other property which cannot be divided

1 without difficulty,
2 the United States of America shall be entitled to forfeiture of substitute property pursuant
3 to Title 21, United States Code, Section 853(p), as incorporated by Title 18, United
4 States Code, Section 2323(b).

5 All pursuant to Title 18, United States Code, Sections 1834 and 2323.

6
7 SECOND FORFEITURE
8 ALLEGATION:

(18 U.S.C. §§ 1834 and 2323 – Proceeds and
Property Involved in Theft of Trade Secrets)

9 93. The allegations contained in Counts Two and Five through Nine of this
10 Superseding Indictment are hereby re-alleged and incorporated by reference for the
11 purpose of alleging forfeitures pursuant to Title 18, United States Code, Sections 1834
12 and 2323.

13 94. Upon conviction of the offenses in violation of Title 18, United States Code,
14 Section 1832 set forth in Counts Two and Five through Nine of this Superseding
15 Indictment, defendants

16 WALTER LIEW,
17 CHRISTINA LIEW,
18 ROBERT MAEGERLE,
19 USAPTI,
20 HOU SHENGDONG,
PANGANG GROUP,
PGSVTC,
PANGANG GROUP TITANIUM, and
PIETC

21 shall forfeit to the United States of America, pursuant to Title 18, United States Code,
22 Sections 1834 and 2323, any property used, or intended to be used, in any manner or part
23 to commit or facilitate the commission of the offenses ; and any property constituting or
24 derived from any proceeds obtained directly or indirectly as a result of the commission of
25 the offenses.

26 95. If any of the property described above, as a result of any act or omission
27 of the defendants:

28 a. cannot be located upon the exercise of due diligence;

- 1 b. has been transferred or sold to, or deposited with, a third party;
2 c. has been placed beyond the jurisdiction of the court;
3 d. has been substantially diminished in value; or
4 e. has been commingled with other property which cannot be divided
5 without difficulty,

6 the United States of America shall be entitled to forfeiture of substitute property pursuant
7 to Title 21, United States Code, Section 853(p), as incorporated by Title 18, United States
8 Code, Section 2323(b).

9 All pursuant to Title 18, United States Code, Sections 1834 and 2323.

10
11 THIRD FORFEITURE (18 U.S.C. § 981(a)(1)(C) & 28 U.S.C. § 2461 – Witness
12 ALLEGATION: Tampering Proceeds)

13 96. The allegations contained in Counts Ten through Thirteen of this Superseding
14 Indictment are hereby re-alleged and incorporated by reference for the purpose of alleging
15 forfeitures pursuant to Title 18, United States Code, Section 981(a)(1)(C) and Title 28,
16 United States Code, Section 2461(c).

17 97. Upon conviction of the offenses in violation of Title 18, United States Code,
18 Section 1512 set forth in Counts Ten through Thirteen of this Superseding Indictment,
19 defendants

20 WALTER LIEW,
21 CHRISTINA LIEW,
22 ROBERT MAEGERLE, and
 USAPTI

23 shall forfeit to the United States of America, pursuant to Title 18, United States Code,
24 Section 981(a)(1)(C) and Title 28, United States Code, Section 2461(c), any property, real
25 or personal, which constitutes or is derived from proceeds traceable to the offenses.

26 98. If any of the property described above, as a result of any act or omission
27 of the defendants:

- 28 a. cannot be located upon the exercise of due diligence;

- 1 b. has been transferred or sold to, or deposited with, a third party;
2 c. has been placed beyond the jurisdiction of the court;
3 d. has been substantially diminished in value; or
4 e. has been commingled with other property which cannot be divided
5 without difficulty,

6 the United States of America shall be entitled to forfeiture of substitute property pursuant
7 to Title 21, United States Code, Section 853(p), as incorporated by Title 28, United States
8 Code, Section 2461(c).

9 All pursuant to Title 18, United States Code, Section 981(a)(1)(C) and Title 28,
10 United States Code, Section 2461(c).

11
12 DATED: Feb 7, 2012 A TRUE BILL

13
14
15 ~~FOREPERSON~~

16
17 MELINDA HAAG
18 United States Attorney

19 J. Douglas Wilson for
20 MIRANDA KANE
21 Chief, Criminal Division

22 (Approved as to form:

23 AUSA Peter B. Axelrod
AUSA John H. Hemann